

Reply to Office Action dated June 29, 2005  
Application Serial No. 10/714,797  
Amendment dated October 21, 2005

### Remarks

The present response is made relative to the Office Action dated June 29, 2005, and identified as Paper No. 20050622. Claims 1-10 are pending.

In the Action, the Examiner objected to the Abstract as more than 150 words. The Examiner rejected claims 1, 4-6, and 9 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,366,347 to Boscher et al. ("*Boscher*"). Claims 2-3 and 10 were rejected under 35 U.S.C. § 103(a) as obvious over *Boscher* in view of U.S. Patent No. 5,452,076 to Schopper ("*Schopper*"). Claims 7-8 were rejected under 35 U.S.C. § 103(a) as obvious over *Boscher* in view of U.S. Patent No. 4,295,738 to Meltz ("*Meltz*").

Applicant has amended the Abstract to be less than 150 words.

Applicant has amended claim 1 to include the limitation previously set forth in claim 2. Claim 2 was rejected as obvious over *Boscher* in view of *Schopper*. According to the Examiner, *Boscher* discloses the positioning of a parasitic fiber next to the transmission fiber and then using a detector to measure the amount of light lost to the parasitic fiber in order to determine the amount of cross talk between the adjacent cores of a multicore fiber. As admitted by the Examiner, *Boscher* does not disclose a system where a detector is coupled to said light (EMR) source and includes circuitry for adjusting the intensity of said light (EMR) source in response to the intensity of light detected in said parasitic fiber, as currently recited in claim 1. To address this missing element *Boscher*, The Examiner proposes modifying *Boscher* according to *Schopper* to form the claimed invention. This combination is improper for several reasons.

First, *Schopper* is non-analogous art and therefore not combinable with *Boscher*. MPEP § 2135.05. *Schopper* is directed at a system for determining the nature of the particular fluid flowing through a pipe by calculating its refractory index. The circuitry in *Schopper* relied on by

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the Examiner, however, is not used to control fluid passing through the pipe. Instead, the feedback system of *Schopper* is used to *adjust the frequency and the cadence* of a flashing LED (but not power) in order to *optimize the detection of the type of fluid passing through the pipe*. While the flashing rate or frequency of the light source is controlled based on information provided by a detector, the detector has absolutely nothing to do with the adjustment of the power level of the light source to account for EMR losses in the fibers themselves or any other reason. In other words, while *Schopper* generally discloses a feedback system, use of that feedback system bears no relationship to that of the claimed invention because it is directed toward the identification of fluids in conventional pipes rather than compensating for EMR losses in optical fibers. As *Schopper* is directed to detecting the nature of fluids, and does not even include a feedback system for adjusting power, it is non-analogous art and cannot be used to support a rejection under 35 U.S.C. § 103.

Second, even if *Schopper* were in the analogous arts, the Examiner failed to identify a proper motivation or suggestion for making the proposed combination. See MPEP § 2143.01 ("Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art"). According to the Examiner, it would have been obvious to modify *Boscher* to include the circuitry of *Schopper* to adjust the power output to use the system in different testing systems. This motivation is not present in the prior art, and is therefore based strictly on improper hindsight analysis. As explained above, *Schopper* uses a feedback detector to control the flashing of an LED to detect the type of fluid passing through a pipe. Thus, *Schopper* motivates the use of a feedback system for detecting the nature of a fluid

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in a separate transmission medium (the pipes) and does not even remotely teach, suggest, or motivate the use of a feedback system to control power output through the transmission medium (the optical transmission lines).

Finally, even if the motivation relied on by the Examiner were disclosed in the prior art, modifying *Boscher* according to *Schopper* would not serve any purpose. MPEP § 2143.01 ("The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)"). Notably, the prior art does not disclose that adjusting the power output of the light source would be of any benefit to *Boscher*. If fact, *Boscher* discloses that cross-talk is determined by dividing the power input into the system by the power coming out of the system. Changing the power input would therefore have no effect at all on this ratio as the power output would not change the fixed ratio used in *Boscher* to calculate cross-talk (any change would "cancel out" since the numerator and denominator would both increase correspondingly). Thus, changing power would be of no advantage to the system of *Boscher* because the change would not affect the ratio — *i.e.*, the proposed combination lacks any reasonable explanation of success. See MPEP § 2143.02. The modification proposed by the Examiner is therefore improper and cannot support the obviousness rejection.

All of the remaining claims depend from claim 1 and are therefore allowable as described above.

A Petition for a One Month Extension of Time with instructions to charge the fee to Deposit Account 50-1546 is submitted herewith.

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In view of the foregoing amendments as supported by these remarks and accompanying documents, the Examiner's reconsideration and allowance of the present application is respectfully requested.

Dated: October 27, 2005

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